

POWER SECTION

Model No: AT475783.7

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	214.75
Contour Length	208.25
Major Diameter	3.122
Eccentricity	0.177
Head diameter	3.250
Thread Form	1.375-6 SA
Weight	377 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	235.00
Tube OD	4.75
Tube ID	3.88
Rubber Cutback Top/End	8.00 / 15.50
Weight	424 lbs
Number of Stages	3.7
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.765	0.004	0.017	0.030	0.049	0.061
.5 OS	2.775	-0.006	0.007	0.019	0.038	0.051
1.0 OS	2.785	-0.016	-0.003	0.009	0.028	0.040
1.5 OS	2.794	-0.025	-0.013	0.000	0.019	0.031
2.0 OS						
2.5 OS						

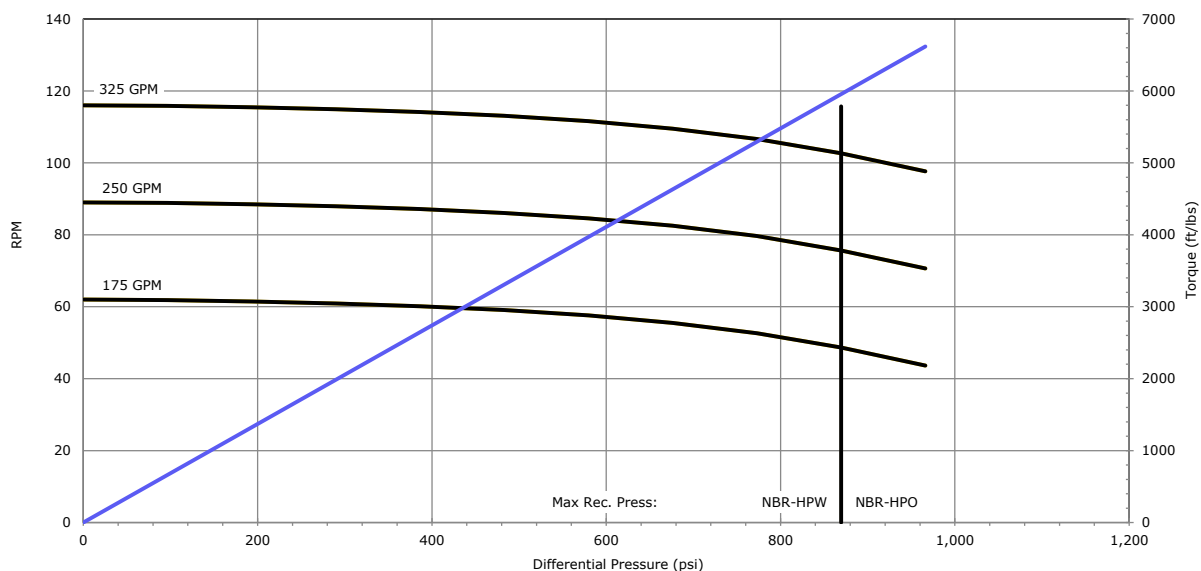
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.765	0.004	0.017	0.030	0.049	0.061
.5 OS	2.775	-0.006	0.007	0.019	0.038	0.051
1.0 OS	2.785	-0.016	-0.003	0.009	0.028	0.040
1.5 OS	2.794	-0.025	-0.013	0.000	0.019	0.031
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (gpm)	175 - 325
Speed Range (rpm)	60 - 120
Torque Slope (ft-lb/psi)	6.85
Rotation (rev/gal)	0.356
Off Bottom Pressure (psi)	60

Performance Details		NBR-HPW	NBR-HPO
Max Diff Press (psi)		870	870
Stall Diff Press (psi)		1370	1370
Max Torque (ft-lb)		5960	5960
Stall Torque (ft-lb)		9390	9390

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ BHCT Exceeding 320°F will void warranty for NBR-HPW/HPO.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT475783.7

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	5454.7
Contour Length	5289.6
Major Diameter	79.30
Eccentricity	4.48
Head diameter	82.55
Thread Form	1.375-6 SA
Weight	171 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	5969.0
Tube OD	120.7
Tube ID	98.4
Rubber Cutback Top/End	203.0 / 394.0
Weight	192 kg
Number of Stages	3.7
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	70.23	0.10	0.69	0.98	1.27	1.56
.5 OS	70.49	-0.15	0.43	0.72	1.00	1.29
1.0 OS	70.74	-0.41	0.17	0.45	0.74	1.03
1.5 OS	70.97	-0.64	-0.07	0.22	0.50	0.79
2.0 OS						
2.5 OS						

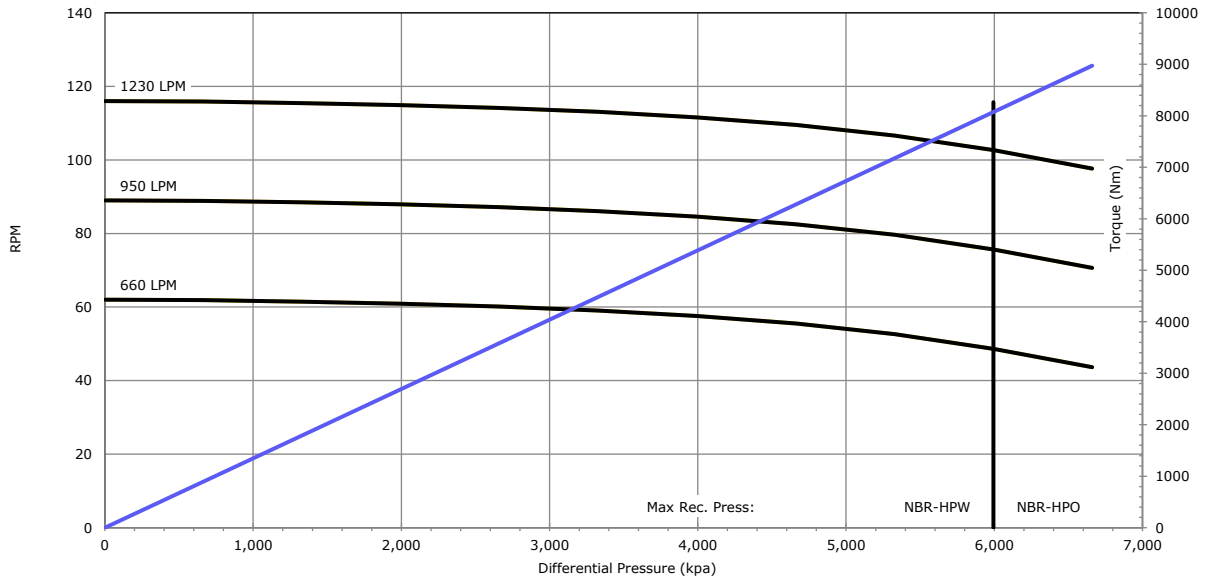
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	70.23	0.10	0.69	0.98	1.27	1.56
.5 OS	70.49	-0.15	0.43	0.72	1.00	1.29
1.0 OS	70.74	-0.41	0.17	0.45	0.74	1.03
1.5 OS	70.97	-0.64	-0.07	0.22	0.50	0.79
2.0 OS						
2.5 OS						

Performance Specifications	
Flow Range (lpm)	660 - 1230
Speed Range (rpm)	60 - 120
Torque Slope (Nm/kpa)	1.35
Rotation (rev/Liter)	0.0940
Off Bottom Pressure (kpa)	400

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	6000	6000
Stall Diff Press (kpa)	9400	9500
Max Torque (Nm)	8100	8100
Stall Torque (Nm)	12800	12800

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ BHCT Exceeding 160°C will void warranty for NBR-HPW/HPO.

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